

a viderity case study:

THE REDESIGN OF THE  
NATIONAL ARCHIVES  
WEBSITE

02.05.2011



# Part 1: The Challenge

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## Site Overview

The National Archives is America's collective memory. Comprising enough documents to circle the Earth 57 times, it is also responsible for the Presidential Library System, the National Personnel Records Center (containing over a century's worth of employment records for the military and federal civil servants) and dozens of regional and affiliated facilities. Professional historians, genealogists, veterans, federal records managers, educators, members of Congress, and the general public all rely on the Archives as an indispensable resource for documents relating to America's past, present and future.

Archives.gov is the institution's window on the web. A massive site, it provides a catalogue for over 3.5 billion electronic documents and digital reproductions, resources for veterans (including access to military service records), research guides, online publications, lesson plans, educational tools and engaging exhibits that explore fascinating aspects of our nation's history.

In the spring of 2009, Viderity, The National Archives Web Program support contractor, began a ground-up redesign of the site. This case study documents that project, its challenges and the solutions that we developed.

## Reasons for Redesign

The National Archives website underwent its last major redesign in 2005. Since then, the site has continued to grow at a rate of several thousand pages each year. By 2009, it had accumulated over 16,000 pages and was handling over 80 million annual page views. When this project began, the site was showing the strain from this growth and was in desperate need of an update. Some of the challenges driving the decision to initiate the redesign included:

### Task Orientation

The site was not organized around the tasks that visitors wanted to perform. While the "Most Requested" links on the home page helped guide users to critical pages, the home page and internal pages didn't focus on user goals and were full of unrelated links and content that distracted users from their objective.

### Growing Pains

As with any site that requires frequent updates by a large number of content contributors, Archives.gov was showing the strain produced by rapid organic growth. Content was frequently duplicated,

and pages were cluttered with extraneous links and buttons as well as organized in ways that made them difficult to understand.

In addition, critical content (especially that related to holdings, genealogy and educational materials) had become scattered throughout the site. Visitors often needed to traverse multiple sections on a sort of “content scavenger hunt” to locate the breadth of information available on a particular topic.

### Look and Feel

The site’s 2005 design was outdated and didn’t reflect the clutter-free, spacious designs typical of modern sites. Its narrow page width wasn’t able to take advantage of the extra screen real estate afforded by today’s higher resolution monitors and its three-column layout was cramped and overcrowded thus making it very difficult to find information on a page.

### Social Media

Since the last redesign, the growth of social media sites like Facebook and Twitter has had a significant impact on the way individuals use the Internet. Because of this and the Obama administration’s directive to “create a culture of transparency, participation, and collaboration” the Archives was focused on transforming its site into a hub for its numerous social media initiatives.



The old Archives.gov home page was densely packed with options many users found to be overwhelming and confusing.

## Challenges

When Viderity accepted the challenge to redesign Archives.gov, we knew the project would be complex and intricate. Some of the many obstacles we had to overcome included:

### Size of Site

The site encompasses over 16,000 different pages of information maintained by dozens of Archives staff members. Developing a strategy that enabled us to account for the sheer breadth of information, as well as the agency’s complex organizational structure, was critical.

### Technical Architecture

The site’s content is managed using a template-based system that merges common elements like headers, footers and navigation bars with a page’s content. While it significantly eases the challenges of managing the site on a day-to-day basis, it doesn’t provide the more robust tools associated with modern content management systems (CMS). To ease the transition from the old site to the new, the decision was made to retain the existing architecture and transition to a CMS in 2011, after the redesign was complete. Thus, we had to develop a site that both worked seam-

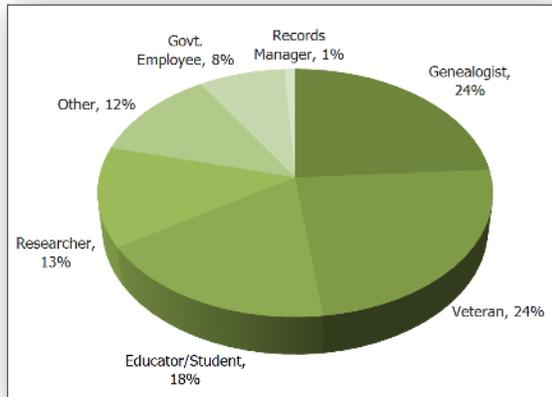
lessly within the current PHP template system and was “future proofed” against the planned CMS migration.

### Delivery Schedule

In 2009 we developed a strategic approach to the project. We received the go-ahead to begin the actual redesign work in mid-March 2010 with a scheduled launch date in late November of the same year. This gave us an extremely compressed time frame to develop the information architecture, visual design and code for an extremely large and intricate site.

### Audience Diversity

Finally, the people who visit Archives.gov represent a widely diverse body of users. From professional historians looking for industrial-grade research tools, to casual users seeking to learn more about America’s history, to genealogists trying to discover their family’s heritage, to veterans seeking documentation of their military service, the website needs to cater to people of all ages and from all walks of life. Accommodating this diversity was critical in the site redesign.



*Site traffic segmented by audience type. Each group visits the site with a unique set of needs.*

# Part 2: The Process

While the redesign project followed the basic web process footprint utilized by Viderity on all of its projects, adjustments were made to meet the unique needs of this project. The approach we took is briefly described below:

## Strategy

We began with an in-depth review of the site itself, customer satisfaction survey data and comments, site traffic statistics and analogous government and commercial websites. From this information we were able to develop both statistical and anecdotal evidence that identified key audience groups, objectives, click paths and technological constraints and from these findings, we made a series of integrated recommendations which we used as a guide throughout the project. The strategy itself was documented in a 71 page document which can be downloaded at [www.archives.gov/open/redesign/data/site-analysis-recommendations-summary.pdf](http://www.archives.gov/open/redesign/data/site-analysis-recommendations-summary.pdf)

## Information Architecture

We then developed a comprehensive organizational strategy based on the guidelines set forth in the strategy document. Card sorts, along with web best-practices, were used to develop a top-level site map and detailed, page-by-page maps for the most-trafficked sections. Wireframes (schematic layout diagrams) were created and their usability tested with a public audience. Most significant, however, were the section improvement plans — over 350 pages of guidebooks developed for content contributors detailing all of the pages requiring modification and editing. As we moved into the design and implementation phases, the team at the Archives began reworking the site content to incorporate our recommendations. Today, post launch of the redesigned site, they continue to work toward implementing the streamlined menus and page revisions we proposed.

## Design

The design of the new home page became a national event. The public was engaged to select their favorite from four distinct designs (see the “Public Participation” section below). Based on this design, and feedback from the public and Archives’



Wireframe schematics were developed for key pages to show the navigational scheme and hierarchical relationship between page elements.

staff, we further refined the home page and then developed designs for key interior pages.

## Implementation

Implementation provided a particular challenge; not only did we have to build the site in parallel with the development of new content, but we also had to ensure that every existing page was compatible with the new design and worked within the existing template system used to manage content. After coding the home and top-level portal pages, we worked to modify the page templates and style sheets to adapt the existing site content to the new layout and design. We also coded new features like the home page news ticker and Bing-driven locations map, as well as developed new graphical elements like page headers and icon sets.

## Testing

Prior to launch, we tested the site using a three-pronged strategy. First, we developed a 47 point checklist of technical tests ranging from assessing browser compatibility to ensuring Section 508 compliance. Second, we engaged the public in a final round of usability tests. Finally, we worked with Archives' staff to do a page-by-page review of the new site in order to ensure all of the new and legacy content was displaying as anticipated.

## Public Participation

The level of public involvement in the project was extensive and occurred at every stage of the process. This is consistent not only with web best-practices, but also with the federal government's mandate for transparency and increased public participation in the workings of executive agencies. Some of the key methods Viderity used to solicit end user feedback included:

### ACSI Survey Data

The National Archives administers customer satisfaction surveys to site visitors on an ongoing basis. Both statistical and anecdotal data gathered from these surveys was used to identify key audiences, top user tasks and points where the site could be improved.

### Card Sorts

Topical organization and nomenclature was developed based on card sort exercises where participants were presented with a set of topics and asked to sort them into categories. The results from these sorts were analyzed using a statistic-driven methodology and then used to develop the navigational structure for the site.

### Public Voting

To determine the look and feel for the site, the public was invited to choose between alternative home page designs. Voting occurred both online and in person at the main Archives building in Washington, DC. Over three thousand people participated in this process; their votes and comments were instrumental in shaping the site's final design direction.

### Usability Testing

Tests based on the top user tasks were developed and administered at key stages in the process. Participants were selected from core user segments (veterans, researchers, etc.) and were asked

to use site prototypes to locate various pieces of information. Their responses were analyzed and used to refine, and in some cases reimagine, critical parts of the site's architecture and design.

### Public Comment

Comments provided by users from Archives.gov blogs and the Archives' IdeaScale site were used to refine the strategic direction and inform decision making throughout the process. In addition, the Archives maintained a page on its website dedicated to the redesign. On it, the entire process was documented and further user feedback solicited.

# Part 3: The Solution

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## Phased Approach

Given the project's aggressive delivery schedule, one of the first decisions we made was to adopt a multi-phase approach to the project. During the strategy phase, we determined that 87% of site visits were focused on doing historical/genealogical research and obtaining military service records. This suggested that addressing the site pages that supported those two goals first would create a manageable project scope that covered the majority of visitors' needs. Consequently, we adopted a three-part approach:

- We performed a ground-up reorganization of the research and veterans content. This included creating new portal pages, reworking the information architecture, delivering detailed content improvement recommendations and applying the new design.
- For the teachers' resources and regional location sections (the other two most popular site sections), we created new portal pages and applied the new design. A more detailed reorganization of these sections will occur in the next project phase.
- For the remaining site sections, we applied the new design.

This approach allowed us to focus our efforts on the most trafficked sections while maintaining a consistent visual identity throughout the site. Future project phases will be addressed beginning in the spring of 2011.

## Top-Task Orientation

As mentioned in Part 1, organizing content and navigation around user objectives ("top tasks") was a key factor driving the redesign. This approach provides at least three benefits:

- Visitors can direct their browsing experience based on their needs and are able to find information faster, with less difficulty.
- Cleaner, task-focused menus help decrease site clutter and increase the overall usability of the site.
- The National Archives' Web Program is able to better measure the site's effectiveness based on how well a user is able to accomplish a specific task.

To develop this "top task" orientation, we began by identifying the key activities users performed on the site. We did this via several methods:

- We reviewed customer satisfaction survey data to identify the most popular activities that users performed on the site (e.g., research historical records or locate military service records).
- We then analyzed user click paths to determine the most popular destination pages within each activity. For instance, we found that users who identified themselves as “researchers” were most likely to access pages associated with learning how to use the Archives for research, finding a list of available research topics or using one of the Archives’ online databases.
- We also carefully reviewed user comments to identify any common tasks users wanted to perform but were unable to—either because the information was unavailable or difficult to find.

The results of this analysis were instrumental in developing the top- and second- level navigational structure for the site. It also helped us develop a task-based naming system for menu items as well as laser-focus the menu contents on items directly related to the task at hand.

## Revised Navigation Paradigm

Perhaps the most critical element in the redesign was the navigational system. In a site and complex as large as Archives.gov, it was essential to develop a means of locating content that was both intuitive and comprehensive. The navigational system we designed consists of three primary components:

### The Main Navigational Bar

Spanning the top of each page, the main navigation bar consists of five primary links: Research Our Records, Veterans’ Service Records, Teachers’ Resources, Our Locations, and Shop Online. Research showed that over 90% of site visits are focused on finding information related to these topics (access to the Archives eStore, while not a popular goal in the old site, was a task that Archives staff wanted to give more prominent exposure). Thus, the overwhelming majority of visitors are able to quickly and accurately begin their information search by simply choosing between one of these five options.

### The Portal Pages

Each section of the site (research, veterans, etc.) is organized by a simple, task-driven portal page. Top tasks for the section are clearly displayed in the body of the page while related news, notices and other frequently changing information is located in the right hand column. This pattern helps orient each section around the core user objectives while providing a level of consistency throughout the site that enhances the findability of information and visitor orientation.

### The Mega Footer

Employing a pattern that’s becoming increasingly popular in modern websites, links relating to less popular tasks are relegated to a “mega footer” at the bottom of each page. On the home page, the mega footer contains links to all the site sections not covered in the main navigation bar. Within each section, the footer serves as a map to the section’s main content areas. So while the key tasks that users want to perform are addressed in the main navigation bar and portal pages, links relating to all of the other tasks are still visible on every page and placed in a subordinate position appropriate to their popularity.

## Updated Design

The most obvious aspect of the redesigned site is its fresh, new visual design. As mentioned in Section 1, our goal was to create a site that was more consistent with current web design trends, more spacious and open, and enabled the updated top task-driven navigation system. Some key components of the new design include:

### Wider Pages

Since over 92% of site's visitors were viewing the site at a resolution of 1024 pixels or wider, the old design was too narrow and cramped for modern monitors. Consequently, we increased the page width from 760 pixels to 960 pixels. This provided much more breathing room for design elements and enabled the three-column design to work without feeling overly compressed.

### Color Coding

To enhance wayfinding, we color coded each major section of the site. This can be seen in the links in the main navigational bar as well as in the headers and decorative elements on each page. Doing this provides a subtle cue to users that helps them keep track of what part of the site they're currently in.

### Photographic Imagery and Icons

We believed the Archives' vast collection of fascinating historical photos should feature prominently in the new design. Consequently, we employed relevant photos from the Archives' collections to illustrate both the primary links on the home page as well as the section headers within the site.

To complement the photographic headers, we developed a set of photographic icons to act as both decorative elements and assist in usability. Each icon was selected to clearly illustrate its associated link and thus provide an additional cue to help visitors quickly locate the information they're seeking.



Many of the site's design enhancements including its wider layout and its use of color coding and historical photos can be seen in the updated home page design.

## Reorganization of the Research Section

Three out of five site visits involve research within the Archives' holdings. This task attracts a broad range of visitors—from professional historians to genealogists to teachers to the general public. However, over time the organic, ad hoc growth of the site caused research-related content to become scattered and disorganized. Viderity's solution addressed this challenge in a number of ways:

- We consolidated research- and holdings-related content into a single site section in order to

reduce the need for visitors to go on a “content scavenger hunt” to locate the breadth of holdings related to their topic of interest. Now, visitors have a single point of access for previously dispersed content like genealogical materials, online exhibits and military records.

- We developed a topical portal to serve as a common point of entry for the Archives’ holdings. Using card sort exercises, we organized the holdings into seven core groups of topics (people, places, events, etc.) and created a single page where all this information could be found. For instance, users interested in genealogy, ethnic heritage, women’s history or famous people can now find that information under the “people” topic.
- We extended the topic concept into individual topic pages, each focused on a single topic of relevance. On these pages, visitors can find a comprehensive set of links leading to all the information related to a particular topic. In addition, related material, such as online exhibits and lesson plans, is easily accessible. Finally, we created a Highlights Gallery at the top of each topic page that shows images of popular records relating to that page’s topic. This helps create a page that is equally valuable to both the casual browser and the professional researcher.



*The Research by Topic page organizes the breadth of the Archives’ holdings into seven core topics.*

# Part 4: Solution Highlights

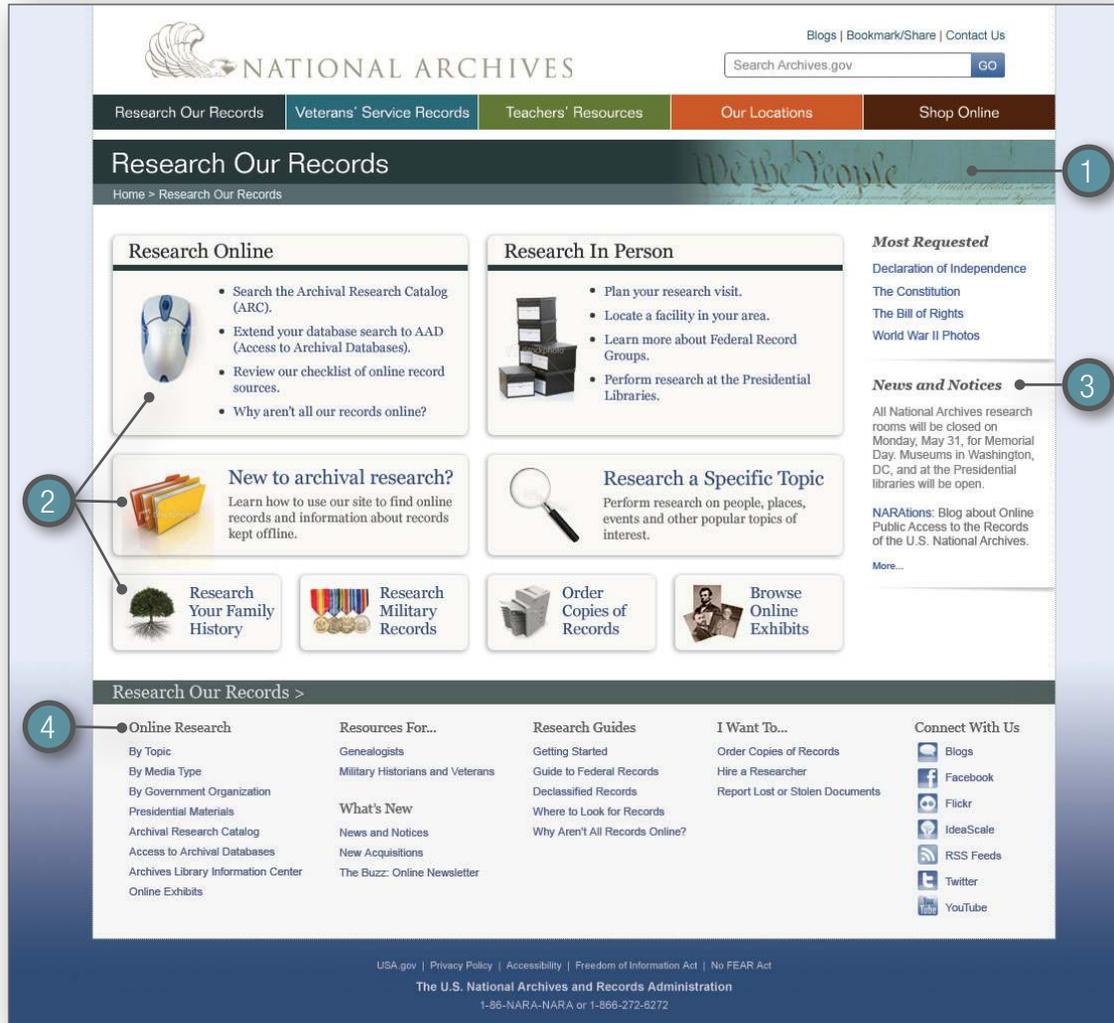
The following illustrations show specifically how the solution components described in the previous section were applied to key pages on the site:

## Home Page



1. Many users rely on the site's search box as their primary way of finding information. We placed it prominently and consistently at the top of each page.
2. The five core sections of the site are highlighted with color-coded links illustrated with photos from the Archives' collections.
3. Current news items are displayed using an RSS-driven, rotating news ticker.
4. Links to the Archives' social media initiatives are consolidated within the "Connect With Us" section.
5. The "mega footer" provides an at-a-glance view of the breadth of the site's content.

# Research Portal



1. The header is color-coded to signify a research-related page and incorporates imagery taken from the Archives' holdings.
2. Top research-related tasks are organized hierarchically by importance and are illustrated using vibrant, photographic icons.
3. Dynamic content, including the most popular documents, current news and the "Today's Document" feature, is consistently placed in the right column.
4. Links to secondary research content are placed in the footer. This provides an at-a-glance overview of the section's contents.

# Locations Portal



1. As in the research section, the header is color-coded and contains historical imagery.
2. Users can use these task-based tabs (e.g., “Research in Person”) to locate the Archives facility that is best able to meet their needs.
3. The dynamic map, driven by Bing technology, shows the location of each facility.
4. Critical information for each facility, such as its address, services, and driving directions, is provided in an easy to read format.
5. Links to other popular location-related tasks are also prominently placed.

# Research Topic Page

**NATIONAL ARCHIVES**

Search Archives.gov GO

Research Our Records | Veterans' Service Records | Teachers' Resources | Our Locations | Shop Online

## Native American Heritage

Home > Research Our Records > Research By Topic > Native American Heritage

**1** Ethnic Heritage  
African American  
Chinese  
Hispanic  
Japanese  
Native American  
Other Ethnic Groups/  
Nationalities  
Ethnic Heritage Links

Back to Research by Topic

### Highlights from Our Collection

**2**

- Andrew Jackson's Message to Congress "On Indian Removal"
- Hopi Man Weaving a Blanket, 1879
- The Dawes Act of 1887
- First terrace of Zuni, NM, 1879
- Hopi (Moqui) Petition from 1894

Click an item to learn more.

### Introduction

The National Archives holds information about American Indians who maintained their ties to Federally-recognized Tribes (1830-1970). Most records are arranged by tribe. Read more.

Helpful information to know before searching these records:

- Name of the person
- Name of the person's federally-recognized tribe
- Approximately when the person lived
- What state or territory the person lived in

The original administrative records of the Bureau of Indian Affairs (BIA) headquarters are in the National Archives, Washington, D.C. NARA's regional facilities hold records created by the BIA field offices and Indian schools. NARA's regional facility in Ft. Worth holds many of the records relating to the Five Civilized Tribes.

### General Information

- Wantables and Outlooks: Searching for Indian Ancestors in Federal Records, article by Kent Carter
- Microfilm Rolls pertaining to Native Americans available at the National Archives Southwest Region, Fort Worth
- Records Available for Studying Native Americans in NARA's Pacific Sierra Region (San Francisco), reference information paper
- Records of the Bureau of Indian Affairs
- Indian Bounty Land Applications, an article from *Prologue* magazine.
- Published Primary Sources Relating to Native Americans
- Pictures of Native Americans, a list with links to 194 images held by NARA.

### Census Records

- American Indians in Bureau of the Census Records
- American Indians in the Federal Decennial Census, 1790-1930
- Indian Census Rolls, 1885-1940, microfilm rolls list
- Eastern Cherokee Enumeration: Selected Microfilmed Records
- Chippewa Enumeration: Selected Records on Microfilm

### Table of Contents

- Introduction
- General Information
- Census Records
- Dawes Rolls
- Other Specific Native American Topics

### Related Topics

- Westward Expansion and Exploration
- 19th Century Events
- Ethnic Heritage

View all Topics

### Related Exhibits

- Documented Rights
- The National Archives Experience: The Digital Vaults
- American Originals

View all Exhibits

### Related Lesson Plans

- Maps of Indian Territory, the Dawes Act, and Will Rogers' Enrollment Case File
- Memorandum Regarding the Enlistment of Navajo Indians

View all Lesson Plans

**3**

**4**

1. Links closely related to the current topic are included in the left column. This is a consistent pattern applied throughout the site.
2. The highlights gallery shows a selection of documents related to the research topic. This is a critical part of making the page friendly and accessible to non-professional users.
3. The main content area contains both an introduction to the research topic along with an extensive catalog of holdings and resources related to the page's subject matter.
4. The right column contains both a table of contents for the page as well as links to related materials such as online exhibits and lesson plans.

## Part 5: Looking Ahead

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Since the new site launched in December 2010, both Viderity and the National Archives have been hard at work on additional initiatives designed to extend and elaborate the work we performed in the first phase of the redesign effort. Some current and upcoming initiatives include:

### Phase II Archives.gov Development

Phase I of this project focused on the research and veterans sections. Throughout 2011, we will be reworking other key sections of the site. This will involve the application of the outstanding recommendations in the 2010 improvement plans, developing additional improvement plans highlighting ways to streamline and improve the site's content, simplifying the site structure and navigation and creating additional portal pages. Upcoming sections that we'll be working on include teachers' resources, regional archive pages and the extensive "About Us" section.

### "Today's Document" Mobile App

To bolster the Archives' goal to extend the web experience to mobile platforms and intensify their use of social media, Viderity developed the "Today's Document" app for the iPhone, iPad and Android platforms. This app, created in a single month, showcases 365 documents and photos from the Archives' holdings. With it, users can search for a specific document, zoom and pan images, and share with friends on Facebook and Twitter.

### CMS Integration

In 2010, the decision was made to migrate the site from the PHP template-based content engine to a full-featured Drupal content management system. This will allow content contributors to easily add and update site content, reduce the amount of overhead involved in maintaining navigational menu systems, establish robust workflow procedures for content review and approval, provide for new dynamic page features, and generally make the site more manageable and robust.



*The "Today's Doc" app extends the National Archives experience to the most popular mobile platforms..*

If you would like more information about professional web design and development services please contact Viderity at [info@viderity.com](mailto:info@viderity.com).

## About Viderity

Viderity is an 8(a) certified information technology (IT) and business consulting company headquartered in Washington, DC, USA. Viderity predominantly provides IT personnel staffing services to state and federal government agencies in the following areas: web site and application development and management; print and online marketing solutions; and IT and business strategy planning. Viderity started in the fall of 2007 with the aim towards helping agencies achieve their most challenging Internet goals. For more information about Viderity, please visit [www.viderity.com](http://www.viderity.com).

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